

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:
 - a main housing;
 - a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet;
 - a fan located within the fan housing and rotatable about an axis; and
 - a heater in the discharge duct shielded from the discharge outlet by at least one interior wall of the discharge duct, substantially the entire heater located in a substantially straight portion of the discharge duct.
2. (Original) The ventilating and heating apparatus of claim 1, wherein:
 - the discharge outlet lies in a plane;
 - an imaginary cylinder extends in a direction normal to the discharge outlet and has a cross-sectional shape and size that is the same as that of the discharge outlet; and
 - the heater lies outside of the imaginary cylinder.
3. (Original) The ventilating and heating apparatus of claim 1, wherein an area directly below the main housing and the heater is shielded from the heater by at least one interior wall of the discharge duct.

4. (Original) The ventilating and heating apparatus of claim 1, wherein:
the heater is located in a position along the discharge duct;
the discharge duct defines an imaginary cylinder extending from the position and along the discharge duct;
the imaginary cylinder has a cross-sectional shape and size that is the same as that of the discharge duct at the position; and
substantially no part of the imaginary cylinder extends out of the discharge outlet.
5. (Cancelled).
6. (Original) The ventilating and heating apparatus of claim 1, wherein the discharge outlet is located at an angle with respect to discharge duct.
7. (Original) The ventilating and heating apparatus of claim 1, wherein the heater is removably secured in the discharge duct.
8. (Currently Amended) The ventilating and heating apparatus of claim 1, wherein the ~~discharge duct includes a substantially straight portion extending extends~~ from a chamber in which the fan is located and an elbow ~~extending extends~~ from the substantially straight portion.
9. (Original) The ventilating and heating apparatus of claim 8, wherein:
the substantially straight portion of the discharge duct defines a first cross-sectional area taken along a plane normal to the straight portion;
the discharge outlet defines a second cross-sectional area taken along a plane normal to flow of air through the discharge outlet; and
the second cross-sectional area is less than the first cross-sectional area.
10. (Original) The ventilating and heating apparatus of claim 1, further comprising at least one illumination device coupled to the main housing.

11. (Original) The ventilating and heating apparatus of claim 1, further comprising a cover coupled to and substantially closing an open side of the main housing, the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing.

12. (Original) The ventilating and heating apparatus of claim 11, further comprising a screen coupled to the cover and positioned in a path of air exiting the discharge outlet.

13. (Original) The ventilating and heating apparatus of claim 1, wherein:
the main housing includes at least one aperture therein;
the fan housing includes at least one protrusion; and
the fan housing is removably coupled to the main housing by engaging the at least one protrusion within the at least one aperture.

14. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:
- a main housing;
 - a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet;
 - a fan located within the fan housing and rotatable about an axis; and
 - a heater in the discharge duct shielded from the discharge outlet by at least one interior wall of the discharge duct, the heater located in a substantially straight portion of the discharge duct;
- the fan housing including
- a first side wall having a peripheral flange extending therefrom in a direction substantially normal to the first side wall;
 - a second side wall substantially identical to the first side wall, spaced from the first side wall, and in facing relationship from the first side wall; and
 - at least one additional wall coupled to the peripheral flanges of the first and second side walls and extending along the outer periphery of the first and second side walls.

15. (Original) The ventilating and heating apparatus of claim 1, further comprising
- a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;
 - a ventilation fan assembly positioned in the first compartment; and
 - an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly.

16. (Original) The ventilating and heating apparatus of claim 15, further comprising a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment, wherein the fan housing is positioned in the first sub-compartment, and wherein the electrical wiring associated with the ventilation fan assembly is passed through an aperture in the first dividing wall and into the second sub-compartment.

17. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet;

a fan located within the fan housing and rotatable about an axis;

a heater in the discharge duct shielded from the discharge outlet by at least one interior wall of the discharge duct, the heater located in a substantially straight portion of the discharge duct;

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment;

an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and

a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,

the fan housing positioned in the first sub-compartment, and

the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall and into the second sub-compartment

the electrical wiring associated with the ventilation fan assembly passed from the second sub-compartment to an exterior of the main housing via at least one outlet aperture in a side wall of the main housing.

18. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet;

a fan located within the fan housing and rotatable about an axis;

a heater in the discharge duct shielded from the discharge outlet by at least one interior wall of the discharge duct, the heater located in a substantially straight portion of the discharge duct;

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment;

an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and

a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,

the fan housing positioned in the first sub-compartment, and

the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall and into the second sub-compartment,

electrical wiring associated with the fan and heater in the first sub-compartment passed into the second sub-compartment via an aperture in the second dividing wall.

19. (Cancelled).

20. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet; and

a heater positioned in the discharge duct and operable to heat airflow passing through the discharge duct, the discharge duct having a first cross-sectional area taken along a plane normal to the discharge duct at the heater, the discharge outlet having a second cross-sectional area taken along a plane normal to airflow passing through the discharge outlet, the second cross-sectional area being less than the first cross-sectional area;

a ratio of the first cross-sectional area to the second cross-sectional area being no greater than 4:1 and no less than 1.125:1.

21. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein a ratio of the first cross-sectional area to the second cross-sectional area is no greater than 1.75:1 and is no less than 1.25:1.

22. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein a ratio of the first cross-sectional area to the second cross-sectional area is no greater than 1.625:1 and is no less than 1.375:1.

23. (Original) The ventilating and heating apparatus of claim 21, wherein a ratio of the first cross-sectional area to the second cross-sectional area is about 1.5:1.

24. (Cancelled).

25. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein:

the discharge outlet lies in a plane and defines an imaginary cylinder extending in a direction normal to airflow through the discharge outlet; and

the heater lies outside of the imaginary cylinder.

26. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein an area directly below the heater is shielded from the heater by at least one interior wall of the discharge duct.

27. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein the heater is located in a portion of the discharge duct defining an imaginary cylinder, and wherein substantially no part of the imaginary cylinder extends out of the discharge outlet.

28. (Previously Presented) The ventilating and heating apparatus of claim 20, wherein the heater is removably secured in the discharge duct.

29. (Previously Presented) The ventilating and heating apparatus of claim 20, further comprising at least one illumination device coupled to the main housing.

30. (Original) The ventilating and heating apparatus of claim 20, further comprising a cover coupled to and substantially closing an open side of the main housing, the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing.

31. (Original) The ventilating and heating apparatus of claim 30, further comprising a screen coupled to the cover and positioned in a path of airflow through the discharge outlet.

32. (Previously Presented) The ventilating and heating apparatus of claim 20,
wherein:

the main housing includes at least one aperture therein;
the fan housing includes at least one protrusion; and
the fan housing is removably coupled to the main housing by engaging the at least one
protrusion within the at least one aperture.

33. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet, the discharge duct including a substantially straight portion extending from a central chamber of the fan housing and an elbow extending from the substantially straight portion; and

a heater positioned in the substantially straight portion of the discharge duct and operable to heat airflow passing through the discharge duct,

the discharge duct having a first cross-sectional area taken along a plane normal to the discharge duct at the heater,

the discharge outlet having a second cross-sectional area taken along a plane normal to airflow passing through the discharge outlet,

the second cross-sectional area less than the first cross-sectional area,

the fan housing including

a first side wall having a peripheral flange extending therefrom in a direction substantially normal to the first side wall;

a second side wall substantially identical to the first side wall, spaced from the first side wall, and in facing relationship with the first side wall; and

at least one additional wall coupled to the peripheral flanges of the first and second side walls and extending along the outer periphery of the first and second side walls.

34. (Previously Presented) The ventilating and heating apparatus of claim 20, further comprising:

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment; and

an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly.

35. (Original) The ventilating and heating apparatus of claim 34, further comprising a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment, wherein the fan housing is positioned in the first sub-compartment, and wherein the electrical wiring associated with the ventilation fan assembly is passed through an aperture in the first dividing wall into the second sub-compartment.

36. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing, the fan housing having a discharge duct terminating in a discharge outlet, the discharge duct including a substantially straight portion extending from a central chamber of the fan housing and an elbow extending from the substantially straight portion;

a heater positioned in the substantially straight portion of the discharge duct and operable to heat airflow passing through the discharge duct,

the discharge duct having a first cross-sectional area taken along a plane normal to the discharge duct at the heater,

the discharge outlet having a second cross-sectional area taken along a plane normal to airflow passing through the discharge outlet,

the second cross-sectional area less than the first cross-sectional area;

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment;

an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and

a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,

the fan housing positioned in the first sub-compartment, and

the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall into the second sub-compartment,

the electrical wiring associated with the ventilation fan assembly passed from the second sub-compartment to an exterior of the main housing via at least one outlet aperture in a side wall of the main housing.

37. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

- a main housing;
- a fan housing positioned in the main housing,
- the fan housing having a discharge duct terminating in a discharge outlet,
- the discharge duct including a substantially straight portion extending from a central chamber of the fan housing and an elbow extending from the substantially straight portion;
- a heater positioned in the substantially straight portion of the discharge duct and operable to heat airflow passing through the discharge duct,
- the discharge duct having a first cross-sectional area taken along a plane normal to the discharge duct at the heater,
- the discharge outlet having a second cross-sectional area taken along a plane normal to airflow passing through the discharge outlet,
- the second cross-sectional area less than the first cross-sectional area;
- a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;
- a ventilation fan assembly positioned in the first compartment;
- an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall,
- the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and
- a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,
- the fan housing positioned in the first sub-compartment, and
- the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall into the second sub-compartment,

electrical wiring associated with a fan in the fan housing passed into the second sub-compartment via an aperture in the second dividing wall.

38. (Cancelled).

39. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;
a fan housing positioned in the main housing,
the fan housing having a discharge duct terminating in a discharge outlet;
a heater secured within the discharge duct of the fan housing;
a cover coupled to and substantially closing an open side of the main housing,
the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, and

the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing; and
a gasket positioned between the cover and a periphery of the discharge outlet.

40. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], further comprising a screen substantially covering the discharge outlet.

41. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein:

the discharge outlet lies in a plane;
an imaginary cylinder extends in a direction normal to the discharge outlet and has a cross-sectional shape and size that is the same as that of the discharge outlet; and
the heater lies outside of the imaginary cylinder.

42. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein an area directly below the heater is shielded from the heater by at least one interior wall of the discharge duct.

43. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein the heater is located in a portion of the discharge duct defining an imaginary cylinder, and wherein substantially no part of the imaginary cylinder extends out of the discharge outlet.

44. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein the heater is removably secured in the discharge duct.

45. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein:

the discharge duct includes a substantially straight portion extending from a central chamber of the fan housing, and an elbow extending from the substantially straight portion; and

the heater is positioned in the substantially straight portion of the discharge duct.

46. (Original) The ventilating and heating apparatus of claim 45, wherein:

the straight portion of the discharge duct defines a first cross-sectional area taken along a plane normal to the straight portion;

the discharge outlet has a second cross-sectional area taken along a plane normal to airflow through the discharge outlet; and

the second cross-sectional area is less than the first cross-sectional area.

47. (Original) The ventilating and heating apparatus of claim 46, wherein a ratio of the first cross-sectional area to the second cross-sectional area is no greater than 4:1 and is no less than 1.125:1.

48. (Original) The ventilating and heating apparatus of claim 46, wherein a ratio of the first cross-sectional area to the second cross-sectional area is no greater than 1.75:1 and is no less than 1.25:1.

49. (Original) The ventilating and heating apparatus of claim 46, wherein a ratio of the first cross-sectional area to the second cross-sectional area is no greater than 1.625:1 and is no less than 1.375:1.

50. (Original) The ventilating and heating apparatus of claim 46, wherein a ratio of the first cross-sectional area to the second cross-sectional area is about 1.5:1.

51. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], further comprising at least one illumination device coupled to the main housing.

52. (Currently Amended) The ventilating and heating apparatus of claim 39 [[38]], wherein the main housing includes at least one aperture therein and the fan housing includes at least one protrusion, and wherein the fan housing is removably coupled to the main housing by engaging the at least one protrusion within the at least one aperture.

53. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:
- a main housing;
 - a fan housing positioned in the main housing,
 - the fan housing having a discharge duct terminating in a discharge outlet;
 - a heater secured within the discharge duct of the fan housing; and
 - a cover coupled to and substantially closing an open side of the main housing,
 - the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, and
 - the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing;
 - the fan housing including
 - a first side wall having a peripheral flange extending therefrom in a direction substantially normal to the first side wall;
 - a second side wall substantially identical to the first side wall, spaced from the first side wall, and in a facing relationship with the first side wall; and
 - at least one additional wall coupled to the peripheral flanges of the first and second side walls and extending along the outer periphery of the first and second side walls.

54. (Currently Amended) The ventilating and heating apparatus of claim 53 [[38]], further comprising

- a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;
- a ventilation fan assembly positioned in the first compartment; and
- an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall, the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly.

55. (Original) The ventilating and heating apparatus of claim 54, further comprising a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment, wherein the fan housing is positioned in the first sub-compartment, and wherein the electrical wiring associated with the ventilation fan assembly is passed through an aperture in the first dividing wall into the second sub-compartment.

56. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;

a fan housing positioned in the main housing,

the fan housing having a discharge duct terminating in a discharge outlet;

a heater secured within the discharge duct of the fan housing;

a cover coupled to and substantially closing an open side of the main housing,

the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, and

the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing;

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment;

an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall,

the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and

a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,

the fan housing positioned in the first sub-compartment, and

the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall into the second sub-compartment,

the electrical wiring associated with the ventilation fan assembly passed from the second sub-compartment to an exterior of the main housing via at least one outlet aperture in a side wall of the main housing.

57. (Previously Presented) A ventilating and heating apparatus for installation in a building structure, the apparatus comprising:

a main housing;
a fan housing positioned in the main housing,
the fan housing having a discharge duct terminating in a discharge outlet;
a heater secured within the discharge duct of the fan housing;
a cover coupled to and substantially closing an open side of the main housing,
the cover having a discharge aperture defined therein and in fluid communication with the discharge outlet of the fan housing, and

the discharge aperture of the cover having a larger cross-sectional area than the discharge outlet of the fan housing such that edges of the cover defining a periphery of the discharge aperture are recessed with respect to the discharge outlet of the fan housing;

a first dividing wall positioned in the main housing to at least partially separate the main housing into a first compartment and a second compartment;

a ventilation fan assembly positioned in the first compartment;
an electrical compartment positioned in the first compartment at a location adjacent the first dividing wall,

the electrical compartment enclosing electrical wiring associated with the ventilation fan assembly; and

a second dividing wall positioned in the second compartment and extending between the first dividing wall and a side wall of the main housing to subdivide the second compartment into a first sub-compartment and a second sub-compartment,

the fan housing positioned in the first sub-compartment, and
the electrical wiring associated with the ventilation fan assembly passed through an aperture in the first dividing wall into the second sub-compartment,
wherein electrical wiring associated with the fan in the first sub-compartment passed into the second sub-compartment via an aperture in the second dividing wall.